



Good practice report

Nurturing graduate employability in higher education

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Good practice report: Nurturing graduate employability in higher education

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Good Practice Report: Nurturing graduate employability in higher education



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List of Acronyms Used

ALTC	Australian Learning and Teaching Council
BA	Bachelor of Arts
CSIE UM	Chemical Sciences at the Interface of Education at the University of Michigan
ICT	Information and Communication Technologies
OLT	Australian Government Office for Learning and Teaching
PELTHE	Promotion of Excellence in Learning and Teaching in Higher Education
SMU	Singapore Management University
WIL	Work Integrated Learning

Executive Summary

This Good Practice Report was co-authored by Associate Professors Shelley Kinash and Linda Crane, and Project Manager Madelaine-Marie Judd, through the institutional affiliation of Bond University. Kinash and Crane co-led an Australian Government Office for Learning and Teaching strategic priority project on graduate employability funded in December 2013 and conducted in 2014. Madelaine-Marie Judd was the Project Manager. This project gave the three authors access to a powerful strategic network of OLT scholars of graduate employability and allied subjects. The completed OLT graduate employability project was shortlisted for an international nurturing employability innovation award through Wharton-QS Stars Reimagine Education. The team applied for competitive dissemination funding through OLT and were subsequently awarded a budget for the first author of this report to attend the conference and awards ceremony in Philadelphia, Pennsylvania, USA in December 2015. The conference had 350 delegates from 35 countries, including 20 shortlisted innovators (from 560 submissions) for nurturing employability. This extended the scholars' networks on an international basis and specifically gave them the opportunity to hear about global innovations in employability. The team thereby proposed to write a Good Practice Report as one of the outcomes of the dissemination funding.

The contracted aims of the Good Practice Report were to:

- Collect reports and analyse themes, disciplines, aims, outcomes and impact of Australian Government Office for Learning and Teaching (OLT) Promotion of Excellence in Learning and Teaching in Higher Education (PELTHE) graduate employability initiatives with final reports published between 2010 and 2015
- Invite descriptions of Wharton-QS Stars Reimagine Education 2015 shortlisted international awardees for nurturing employability, and describe and analyse themes, disciplines and impact of these innovations
- Identify the overall trends in graduate employability research and innovation and make recommendations for future work on this domain

The outcomes of this project are:

- A Good Practice Report on Nurturing graduate employability in higher education
- Analysis of eight OLT PELTHE final reports
- Analysis of eight Reimagine Education international shortlisted nurturing employability innovations from six different countries
- A literature review regarding the state of the field in graduate employability
- Four high-level recommendations to advance graduate employability in Australia

The scope of this report was bounded to:

- OLT PELTHE final reports on graduate employability published between 2010-2015
- Reimagine Education 2015 nurturing employability innovation descriptions submitted by their authors

This was a reasonable scope given that provided funding enabled one of the report authors to attend the Reimagine Education conference and awards ceremony and thus extend international networks, but did not provide any resources (including financial) for the research and production of this report.

The methods used by the authors of this report were to:

- ➔ Search the OLT website for applicable final reports
- ➔ Contact the Strategic Priority leaders of graduate employability projects and request their final reports as these are not yet accessible via the OLT website
- ➔ Search for contact information for the Reimagine Education shortlisted innovators for nurturing employability and invite them to send descriptions of their innovations
- ➔ Conduct a brief literature review on graduate employability
- ➔ Read all reports and descriptions and qualitatively analyse using coding, spreadsheets and comparison and contrasts


The primary target audience for this Good Practice Report is executive leaders in higher education including Vice-Chancellors, Deputy Vice-Chancellors, Pro Vice-Chancellors, Directors of Learning and Teaching, Executive Deans and Associate Deans Learning and Teaching. A clear theme across OLT PELTHE reports was that high level leadership and championing is necessary to strategically advance national graduate employability starting at the institutional level by cohesively embedding employability throughout the university. While the analysed international Reimagine Education innovations are positive and commendable, there was minimal presentation of indicators and evidence that these innovations had made a significant difference in graduate employability and particularly outcomes for graduates. This may be because these initiatives were tightly bounded in single-institution and often single-discipline and single-program contexts. The Australian higher education sector can learn from these experiences by strategically leading national level change.

The impact of this Good Practice Report will not be experienced until it is fully disseminated and its recommendations applied to strategic sector-wide practice. The long-term impacts of this project culminating in this report are forecasted to be:

- ➔ National visioning and leadership in sector-wide graduate employability
- ➔ Activated discipline-based networks to action change in graduate employability
- ➔ Scoping of further PELTHE initiatives in graduate employability
- ➔ Greater awareness of the indicators of graduate employability
- ➔ Heightened graduate employability for Australian higher education students and graduates at the undergraduate and graduate level

These impacts can be expected to take some time to eventuate. In large-part, this is due to the nature and context of OLT PELTHE initiatives. Such initiatives are designed to identify and focus on outcomes and impact. They are analytical and developmental in nature rather than applied. This means that the impact comes from inspiring and teaching others how to have impact at the level of the student learning experience and graduate outcomes, rather than designing

and implementing practice-based initiatives with this immediate impact. Furthermore, PELTHE initiatives are time-limited in that the funding runs from a one to three year term and is then finished. Previous authors have also commented on this context, illustrated by the quote below.



The close link between themes addressed by OLT projects and practical issues confronting higher education providers and regulating agencies on a daily basis means that the full value of a project output is unlikely to be realised using normal academic dissemination methods such as conferences, seminars and academic publications which have a significant time delay and a specialisation factor built in. We found that a number of projects developed or trialled tools that appear to have broader applicability beyond the discipline or project in which they were used. In many cases we found it difficult to track these tools down because they were held on various websites and maintained by a variety of organisations. (Freeman & Ewan, 2014, p.6)

As described by these authors, commendable impact derives from OLT PELTHE initiatives, but these outcomes take some time to eventuate. Furthermore, in the case of Good Practice Reports, it is not only the report that is contextualised in this manner but also the initiatives the report author assembles and reviews. For example, the strategic priority projects on graduate employability were conducted in 2014 and conversations with their authors indicate that indicators of authentic impact are now beginning to assemble.

There are five main findings from this review:

1

There is widespread agreement that graduate employability is a higher education priority amid international concern about outcomes for contemporary graduates.

2

Global understanding of graduate employability has evolved and the definition and frameworks need to grow and change responsively.

3

There is strong evidence that embedded whole-of-institution strategic approaches to graduate employability can have commendable impact.

4

There is insufficient data collection and analysis on longitudinal outcome-based indicators of heightened graduate employability.

5

Educators require professional development in how to embed employability in the everyday curriculum and assessment, and tools, resources and approaches need to be discipline-specific.

In summary, the Good Practice Report authors have articulated four strategic national recommendations in the context of graduate employability.



Recommendation 1:

Continue to strive for cohesive, whole-of-institution embedded approaches to employability.



Recommendation 2:

Take key strategic action towards implementing national discipline-based approaches to employability.



Recommendation 3:

Develop, apply and workshop discipline-based tools and resources to enable academics to embed employability in the everyday curriculum and assessment.



Recommendation 4:

Track, report and evaluate multiple outcome-based longitudinal indicators of graduate employability.

A Review of the Field

Throughout the world, higher education institutions articulate explicit strategies and approaches to ensuring that graduates are suitably employed (Arthur, Brennan & de Weert, 2007). Most of these institutions have highly commendable internal career development centres that link students and employers (Bennett, et.al., 2015). Many institutions are now making employability a strategic priority, developing and supporting strategies that make graduate outcomes a whole-of-institution responsibility including embedding employability in the everyday curriculum (The Higher Education Academy, 2015). Such higher education institutions are also carefully differentiating between *employability* and *employment* in that the first concept means that graduates are fit for careers but does not guarantee that jobs (employment outcomes) will transpire because of economic and other factors such as social stigma (Knight & Yorke, 2004).

There is a tension between academics who believe that employability is a key university mission and in stark contrast those who believe that a focus on employability erodes the culture and achievements of higher education (Boud & Solomon, 2001, Newman, 1982). For example, Oliver (2010) wrote that ‘the vast majority of colleagues who engaged with this fellowship were convinced of the moral purpose of graduate employability – that it is our obligation, not just aspiration’ to embed employability throughout the curriculum and the full student experience (p. 7). An illustrative contrasting statement from an academic (who is also a PhD student) is indicative of the highly emotive response to a shifting paradigm towards employability.



[Employability means ...] the death of intellectualism, with more emphasis on job skills. It is not what university is meant to be anyways. Job skills should be on-the-job. University should really be about the pedagogical process and that is not our focus. As a result, academics are not given the opportunity to really showcase their skills within the university setting in a way that they should. (Kinash, 2015, p. 6)

Another directly quoted statement from a different project echoed this sentiment. There are those academics who ‘would say that universities are not “responsible” for anything, except perhaps the pursuit of truth and beauty’ (Bennett, et.al., 2015, iv). Similarly, Harvey and Shahjahan (2013) reported that the majority of Bachelor of Arts academics interviewed in their project believed that employability was important, but should be an implicit by-product of quality higher education. The report authors described these academics as believing ‘their role is to educate students so they become good citizens which will, in turn, make them employable’ (p. 6). These academics did not believe that employability processes, systems and strategies have a role in the everyday curriculum.

The definition of employability includes both process and outcomes. The concept means that higher education institutions take responsibility to develop and support student capacities to prepare them for careers and contributions after graduation. The most prevalent definition of employability was articulated by United Kingdom Scholar Professor Mantz York –

A set of achievements – skills, understandings and personal attributes – that makes graduates more likely to gain employment and be successful in their chosen occupations. (Yorke, 2006, p. 8)



There is widespread agreement that the three core capacities of *skills*, *understandings* (often referred to as *knowledge*) and *attributes* are key determinants of graduate employability (Knight & Yorke, 2004). There is less agreement about how, when and where these capacities are best developed and by whom - and how they can be measured. This latter question is often articulated as – how do we know whether our graduates are employable.



In regard to *skills*, authors writing in the employability domain often address *hard* and *soft* skills (Archer & Davison, 2008). *Hard* skills are discipline and field specific such as surveying techniques for engineers and spreadsheets for accountants. *Soft* skills transcend disciplines and are such capacities as communication, critical thinking and problem solving. There is vocal disagreement about the terms used for these skills. For example, some authors argue against the use of the word *hard* for technical skills because it is a synonym for *difficult*. These authors claim that what are called *hard* skills are easier to develop and support than the supposed *soft* skills. Furthermore, there is disagreement about the extent to which universities carry responsibility and capacity for developing students' technical (hard) skills. Some authors argue that an over-emphasis on such skills erodes the purpose of higher education and the distinction between higher and vocational education (Arthur, Brennan & de Weert, 2007). Others argue that hard skills can only be developed on-the-job (Mintzberg, 2005).

Furthermore, there is a concern that taking a skills-based approach to higher education will eradicate generalist and/or value-based degrees such as humanities, theology, arts and social sciences (Newman, 1982). Finally, there is a growing body of literature that identifies a discord between employers and higher education in that employers are apparently dissatisfied by the skill preparation and development of higher education graduates (Archer & Davison, 2008).

There is also debate in the context of *understandings*, otherwise referred to as *knowledge* (Oliver, 2011). Some authors believe that learning is over-compartmentalised in higher education. These authors believe that students should be taught a wide range of subject matter and emerge as learned scholars. Some of the stated rationales are that a broad-based undergraduate education will develop contributing citizens who can then specialise through postgraduate degrees and/or on-the-job. Furthermore, authors argue that largely due to technological advancement, careers are transforming so rapidly that many of the careers that exist at enrolment will no longer be viable by graduation (Arthur, Brennan & de Weert, 2007). A broad-based education also supports change meaning that graduates are prepared to transition between careers. The dissenting voice is that a well-planned discipline-specific iterative curriculum is necessary to assure that graduates can viably succeed in the workforce. In short, some academics believe that spending time on generalist learning outcomes means that graduates will be ill-prepared for their discipline and thereby not employable (Arthur, Brennan & de Weert, 2007).

The next element of the predominant employability definition is *personal attributes*. In other documents, the adjective changes, and they are called *graduate attributes* (Oliver, 2011). Almost all higher education institutions articulate lists of graduate attributes. All students are to have developed these attributes prior to graduation. Some of the attributes commonly listed include communications, problem solving and critical thinking (Oliver, 2011). There is overlap between graduate attributes and what has previously been described as *soft skills*. There is widespread recognition that the challenges are in teaching attributes and then assessing whether students have successfully internalised them (Oliver, 2011). Some higher education institutions offer and/or require stand-alone units which focus on development of graduate attributes. Other institutions apply processes of curriculum mapping and assurance of learning to strategically provide and evaluate graduate attributes. A final approach is to encourage and support extra-curricular activity whereby graduate attributes may be actively developed.

Extra-curricular activity is another salient theme in graduate employability. Many education leaders and employability scholars believe that a degree is not enough (Arthur, Brennan & de Weert, 2007). It is believed that employability is best developed through students' pursuit of extra-curricular activities such as sport, clubs and societies (Stanley, 2001). Other authors write that there should be more emphasis on co-curricular activities (Knight & Yorke, 2004). Kinash and Crane (2015) explicitly addressed the distinction between extra- and co-curricular activities.



Extra-curricular and co-curricular activities mean student recreational and/or leisure pursuits that take place outside of regular curriculum or program of disciplinary learning outcomes. These activities are pursued beyond the classroom and/or online learning. Whereas extra-curricular activities are separate and apart from the formal learning program, higher education institutions align co-curricular activities with formal schooling so that such activities are part of the overall learning experience. Co-curricular activities are designed to work in conjunction with the discipline curriculum to support employable graduates. (Kinash & Crane, 2015, vi)

Whether extra- or co-curricular, authors agree that the primary advantage of such activities is that they are experiential; in other words, students learn through doing (Kolb, 1984, Mintzberg, 2005). Many authors writing in the domain of employability emphasise that extra- and co-curricular activities in and of themselves are not sufficient. Students must be encouraged to reflect on the experience and articulate what has been learned and/or what graduate attributes these experiences allow them to develop and demonstrate (Moon, 2004). *Identity* is said to be an important element of graduate employability, whereby students are able to articulate what makes them unique and distinctive and thereby present a personal brand or value proposition. It is often the extra- and co-curricular activities that foster this distinctive advantage, but students must be supported to identify how these activities have changed them, what they have learned and then to assimilate these experiences to shape an employable identity (Mintzberg, 2005).

The next aspect of Yorke's (2006) employability definition concerns *outcomes*. The definition states that employability means that graduates 'gain employment and [will] be successful in their chosen occupations' (p.8). However, as stated above, employment is often narrowly defined as full-time and after a designated time period. Some authors ask – what about part-time work, consultancies and entrepreneurial endeavours or start-ups (Lowe, 2000)? Furthermore, how is *success* to be measured? To count as success, must graduates be employed in a job that is a close match to their discipline of study? Is it about job satisfaction and/or income? How does lifelong learning factor into employability (Hager & Holland, 2006)? Does employability success include changes from one career to another, resilience in the transition and scaffolded development of expertise (Knight & Yorke, 2004)? As can be seen with all of these domain areas, there are more questions than answers in the context of graduate employability (Mann, Stanley & Archer, 2014). The concept is becoming better understood through scholarly focus and innovations are emerging which nurture employability. Each of the projects described in the following pages started out with a strong grounding in the prior literature on graduate employability and then contributed to new understandings and approaches.





Completed Australian National Projects and Fellowships

Supporting graduate employability from generalist disciplines through employer and private institution collaboration	
Year Report	2015
Lead Institution	Bond University
Student population	Unspecified
Discipline	Multi-disciplinary
Employability Definition	Graduates developed capacity to obtain and/or create work, Institutions and employers supported the knowledge, skills, attributes and reflective disposition and identity that graduates need to succeed in the workforce
Keywords	Employ-ability framework, employ-ability strategies, co-curricular activities, stakeholder discrep-ancies
Methodology	Literature review, surveys (705), interviews and focus groups (147)

Developing graduate employability through partnerships with industry and professional associations	
Year Report	2015
Lead Institution	RMIT University
Student population	Undergraduates
Discipline	Engineering, ICT, Life sciences, Media and communications, Psychology
Employability Definition	Whether the graduate has the ability to gain and maintain employment (and work) independent of economic conditions
Keywords	Employability framework, Resources, Stakeholder conceptions
Methodology	Literature review, Workshops, focus groups, small group discussions and interviews (287)

Enacting strategies for graduate employability: How universities can best support students to develop generic skills

Year Report	2015
Lead Institution	Curtin University
Student population	Undergraduates
Discipline	Music and Dance, Biomedical sciences and Bio-technology, Professional and creative writing, Computer science
Employability Definition	Skills, understanding, personal attributes leading to career success Sustained development, life-long critique of self and career
Keywords	Generic skills, educator resources, employability development
Methodology	Surveys (415 students in 3 countries), Case studies of students, graduates, leaders, career advisors (60)

Assuring graduate capabilities: Evidencing levels of achievement for graduate employability

Year Report	2015
Lead Institution	Deakin University
Student population	Not specified
Discipline	Not specified
Employability Definition	Skills, understanding, personal attributes leading to career success Creating work, and acknowledges part-time work and consultancies
Keywords	Higher education standards framework, Course learning outcomes
Methodology	Developing and disseminating a curriculum framework, Documenting, disseminating and evaluating (through Deakin) a MOOC, portfolio and digital badging

Improving graduate employability by implementing subject benchmarks

Year Report	2014
Lead Institution	University of New England
Student population	Undergraduates
Discipline	Archeology
Employability Definition	Skills, understanding, personal attributes leading to career success
Keywords	Professional standards, bench-marking
Methodology	Qualitative analysis of workshops (4) and educator interviews (9)

Employability of Bachelor of Arts graduates

Year Report	2013
Lead Institution	The University of Adelaide
Student population	Undergraduates
Discipline	Bachelor of Arts
Employability Definition	Skills, understanding, personal attributes leading to career success
Keywords	Work integrated learning
Methodology	Graduate surveys (476), Employer surveys (10), Academic interviews (40)

Building course team capacity to enhance graduate employability

Year Report	2011
Lead Institution	Curtin University
Student population	Undergraduates
Discipline	Accounting, Public Relations, Communications
Employability Definition	Skills, understanding, personal attributes leading to career success
Keywords	Graduate attributes, Quality assurance, Graduate capabilities, Benchmarking
Methodology	Statistical validation (77 courses from 10 higher education providers), Online survey (8)

Benchmarking partnerships for graduate employability

Year Report	2010
Lead Institution	Curtin University
Student population	Undergraduates
Discipline	Multi-disciplinary
Employability Definition	Skills, understanding, personal attributes leading to career success
Keywords	Graduate attributes, Graduate capabilities, Curriculum mapping, Assessment, Bench-marking, Course level
Methodology	Literature review, Pro-forma development; Benchmarking event with evaluation (24 course leaders from 13 institutions)



Completed Australian National Projects and Fellowships

Research findings and key results

(from OLT PELTHE final reports)

Enhancing employability

- ➔ The research confirms that to identify and develop the skills and attributes needed to navigate post-graduation pathways, higher education students need timely and informed support; Graduates assert that the lack – or under-development – of these skills and attributes is one of the most critical disadvantages encountered by graduates transitioning into work
- ➔ Multiple stakeholders stated that the most employable graduates are those who have a broad-based experience, and are able to sell their own personal identity, brand and profile
- ➔ Transferable skills and a broad-based student experience are more important than the particular discipline of study for impacting employability
- ➔ Higher education personnel (private and public) believe they can bolster graduate employability by promoting/supporting extra-curricular and co-curricular activities and skill development (technical and transferable) through work experience, internships and placements and other types of employability strategies
- ➔ Students have a variety of needs, resources and capacities, such that extra-curricular and co-curricular activities and experiences may not be realistic and accessible to all
- ➔ There are barriers to employment, such as gender, ethnicity and socioeconomic background that may override employability strategies and supports

Educator and curricular barriers

- ➔ Educators are central to the process of change, but higher education leaders, graduates and students report many educators to be ill equipped for the task



The concerns expressed by students, graduates, employers and leaders related largely to academics' lack of knowledge about the contemporary workplace; however, the case studies also revealed barriers including over-crowded curricula, modularised delivery, research-focused key performance indicators and ranking systems, an increasingly casualised workforce, and graduate destination metrics that they are insufficient for the task (Bennett et al., 2015).



Gaps in stakeholder perspectives

- There is evidence of gaps between the perspectives of students, graduates, employers and higher education personnel in how to approach the overall higher education experience for heightened employability
- Gaps emerged between employer perceptions of employability and the perceptions of other stakeholders e.g. employers stated the experience in general (beyond the curriculum) was more valuable than just work experience
- In another of the studies, only 40% of surveyed higher education personnel indicated internships, placements and work experience as a viable strategy set versus 74% and higher of the other groups; follow-up interviews revealed almost unanimous belief in this approach to employability across stakeholder groups, including higher education personnel; the strong majority of interviewees added the proviso that unless there are more financial/human resources, higher education cannot fully support these strategies
- Whereas the majority of surveyed students and graduates indicated that part-time work is a worthwhile employability activity, the majority of employers and higher education personnel disagreed
- The majority of employers and higher education personnel indicated that extra-curricular activities were efficacious employability activities whereas the majority of surveyed students and graduates appeared unaware of this predilection


Employability of Bachelor of Arts (BA) graduates

- Three-quarters of BA graduates employed at time of survey (the time period between graduation and survey were unspecified); the top three employment sectors were reported as: 1) educational institutions, 2) government departments, 3) retail/wholesale; annual salary \$50-75 K
- Academic and graduates agreed the main skills / attributes developed by the BA were critical thinking / analytical and problem solving; and communication
- Graduates listed previous work experience, further study and WIL as most important to developing skills to obtain employment; Academics emphasised importance of having two majors
- There was a discrepancy between graduates and academics regarding the most important employability factors; Graduates said university education; Academics said family and peers
- Graduates, academics and employers perceived challenges of a BA such as devalued status and lack of explicit articulation for employability
- Graduates stated that major challenge of a BA is lack of practical focus
- Majority of academics want to see employability as an *outcome* of their teaching rather than a *goal*

Reimagine Education International Showcases

The Wharton-QS Stars Awards 2015 – Reimagine Education Conference and Awards Ceremony was held in Philadelphia, Pennsylvania 7th to 9th December at the Wharton School of the University of Pennsylvania.

The creators and organisers of the conference and awards describe their vision as follows.

 The Wharton School at the University of Pennsylvania, SEI Center for Advanced Studies in Management and QS Quacquarelli Symonds launched the first global competition on innovation in higher education teaching. Today's students are a multitasking, empowered community, drawn from all age groups and backgrounds. Their fast-changing requirements call for innovative types of teaching. The Wharton-QS Stars Awards Reimagine Education aims to address these issues by identifying the most innovative approaches to pedagogy for higher education.

It will adopt a multi-pronged approach which intends to:

- ➔ Create a global competition for the most innovative pedagogical experiments that work and are scalable
- ➔ Create a network of interdisciplinary thought leader discussion forums around the world to stimulate the debate
- ➔ Identify potential private or public partners to launch experiments
- ➔ Create a social network to encourage continued conversations, idea generation and experimentation

At the 2015 conference and awards ceremony, there were 350 delegates from 35 different countries. There were 560 submissions for innovation awards and employability was the largest category. The conference featured short presentations and networking opportunities with shortlisted innovators. Twenty nurturing employability innovations were shortlisted and four were awarded. These were:

- ➔ Airbus Fly Your Ideas (Airbus, France)
- ➔ Learning to Teach Online (UNSW, Australia)
- ➔ Ivey's Integrated Path to Nurturing Employment (Ivey Business School, Western University, Canada)
- ➔ Spoken Tutorial (Indian Institute of Technology, Bombay, India)

Immediately following the conference, all of the shortlisted innovators in the nurturing employability category were contacted by the Good Practice Report authors and invited to submit documents about their innovation for a summary to be inserted into the report. Eight of the innovators responded by submitting full descriptions of their innovations. These eight descriptions follow. They are provided in random order.

Title	Chemical Sciences at the Interface of Education at the University of Michigan (CSIE I UM)
Employability Domain	Enhanced employability of chemical science academics
Country	United States of America
Contact	Professor Brian Coppola

New faculty members are underprepared for the broad responsibilities and obligations of their careers. My colleagues and I at the University of Michigan set out to address this deficiency. In 2014, after years of experimenting, we launched CSIE I UM (Chemical Sciences at the Interface of Education at the University of Michigan). CSIE I UM is a comprehensive program that improves the professional readiness of students interested in academic careers. The achieved objectives of CSIE I UM are to:

- ➡ address neglected skills needed to address issues and experiences routinely encountered by new faculty
- ➡ provide our students with a competitive advantage in hiring
- ➡ capitalise on our understanding about professional training in scientific research

As with research training, we start early, attracting those with strong inclinations to teach as well as do science. We have created a sustainable model for engaging faculty in the process of instructional development. Faculty members who wish to pursue education projects can form 'teaching groups' made up of student collaborators analogous to the way they form 'research groups'

Title	Worktone App (http://adlearning.com)
Employability Domain	App to enable 16-18 year old students to assess employability competencies
Country	Finland
Contact	Jussi Tuominen

The main objective of the Worktone App is to improve the employability of students by introducing a game like quiz where students can practice their competencies in various work related scenarios. Another important objective of the project is to offer students as relevant feedback as possible to enable them to take charge of their employability. Worktone App lets students answer questions using their own words to reveal the tones and emotions in their responses. Instead of grading students, we aim to be able to indicate where their strengths and possible weaknesses are. Based on the analysis and user preferences, we can create a suggestion of an optimal personal curriculum. In addition to telling what the teacher's answer is, we can promote peer learning by telling students what are the answers of their fellow students. Our cognitive analysis aims to detect the common misbeliefs or false concepts from this corpus of data. In this project we are creating natural language classifiers in order to arrange conceptual questions into fourteen different cognitive levels in three categories (knowledge, skills and attitude). The project uses Natural Language Processing (NLP) to recognise the cognitive level and structure of the questions. Furthermore, NLP is used to analyse the structure, tone and relevance of the students' answers. The Worktone App is in its first version. It will test the students' abilities to enter the job market in Finland. The App will be introduced as widely as possible to Finnish schools and other possible target organisations such as unemployment offices and immigration authorities.

Title	BSBA careerLINKS Program
Employability Domain	Four-year sequence of career units for undergraduate Business students
Country	United States of America
Contact	Professor Laurie Levesque

To prepare students for an uncertain economic future, they need discipline specific knowledge, interpersonal and professional skills foundational to job success, and the ability to explore, build and navigate careers. Undergraduate students in Suffolk University's Sawyer Business School take a four-year sequence of career courses that intentionally introduce and scaffold themes starting in the First-Year Experience course through senior year. Themes include: networking, interviewing, career artifacts (LinkedIn, resume, cover letter), involvement, academic planning and professionalism. Students complete self-assessments, reflections and articulate career aspirations. An example of progressive experience is how first-semester students network on campus to get involved and meet peers and faculty, sophomores interview seniors about their majors and involvement on and off campus, juniors participate in a networking simulation

and connect to professionals on LinkedIn, and seniors interview alumni or executives and are encouraged to network off campus within professional organisations. Our educators are career coaches or local business executives who hire, manage and fire employees and thus speak directly to the career skills and knowledge needed by graduates. Since 2010, all graduating Business undergraduate students completed careerLINKS. At a time when several small regional schools are closing, our current enrolment is up 27%.

Title	PerFORMARE EmotivaMENTE
Employability Domain	Units for Master's Degree students to enhance emotional and other employability competencies
Country	Italy
Contact	Fabrizio Gerli

PerFORMARE EmotivaMENTE is a project dedicated for all Master's degree students, aimed at developing their behavioural skills to increase their employability. The project is designed to help students acquire awareness of their strengths and weaknesses and to develop their emotional competencies in order to improve success in the labour market. The project includes units called *Emotional Competencies and Individual Development* (ECID) and *Competency Labs*. ECID is designed to support students in defining their career objectives and to create personal development plans. Competency Labs is structured in three classroom meetings of two to three hours each as well as accompanying online activities. This unit is designed to allow students to undertake a process aimed at increasing their awareness of the aspirations and objectives of personal and professional growth, measuring their emotional intelligence and understanding their strengths and weaknesses. From 2013 to 2015, 330 students from 28 different master's degrees participated. Evaluation indicated that these students were more aware of the competencies needed for their desired future job and better prepared for their first job interview, having increased their knowledge about soft skills and having identified their employability strengths and areas of needed improvement.

Title	Talent Identification & Career Development Programme (TI&CD) EDHEC Business School Career Booster
Employability Domain	Mirroring Fortune-100 company best practices for Business students
Country	France
Contact	Florence Da Costa

The TI&CD aims to develop future leaders and increase employability through mirroring Fortune-100 company best practices in the form of a three-year training programme including assessment simulations, coaching and professional skills development. Each year, approximately 3000 students from more than 60 nationalities commence the program. There are strong

indications of impact. For example, 96% of graduates from this program find their first job within four months of search. Across a three year program, students are supported to identify different career paths in various sectors and professions through workshops and company presentations, as well as building their career strategy and professional experience. During their gap year, students can gain up to fifteen months of professional experience, helping them to identify their talents and form clear pictures of their aspired professions. Students are particularly encouraged to pursue an experience abroad. The final year is composed of a comprehensive assessment centre with detailed scorings and feedback as well as tailored sector-specific coaching and recruitment events. Students are interviewed and evaluated by over 45 international industry and recruitment professionals from different sectors. Each exercise is stringently scored by the key competencies and students receive a total score including a final ranking.

Title	Biography of the Student and Adoption Lab LUISS
Employability Domain	Personalised employability pathways and partnerships for Business and Law students
Country	Italy
Contact	Lia Di Giovanni

This project responds to the need of increased integration between academic Education and parallel activities which may contribute to build a path intended to enhance graduates' employability and ensure they are ready for the job market. Employers expect graduates to arrive in possession of a pool of skills that extends beyond academic knowledge. LUISS maintains a 7 to 1 student-teacher ratio. A tailored and coherent employability path is designed for each student according to their vocations, aspirations and needs. The employers are active stakeholders in this path, as they contribute to designing it. Within this initiative, students are supported in a targeted and personalised way by a team of experts that includes specialised tutors, coaches and professionals. The expected outputs are:

- ➡ increase in the number of active contacts with employers, internships and curricular traineeships and full integration of employers in the academic training of students
- ➡ greater satisfaction by the employers (through appropriate matches)
- ➡ calibrated didactic interventions on the basis of students' needs as well as competencies demanded by the job market
- ➡ stronger involvement of activated contacts in institutional teaching

To date, the project has 49 employer partners, 1400 graduate completions and 205 students *adopted* by employers.

Title	Entrepreneurship BA
Employability Domain	Entrepreneurial pathway within a general Business degree
Country	United Kingdom
Contact	Jane Chang

This entrepreneurship pathway, created in 2010 within a general business degree has modules that are action-oriented, allowing student teams to deal with real business projects, supported by team coaching and application of theories. At the University of Westminster we have developed an effective curriculum that enables students to develop genuine entrepreneurial capability. They achieve this through the creation of real enterprises. Based on a *learning-by-doing* philosophy, the students are coached rather than taught, reflecting on what they have learned through their interactions. This process is supported by trained team coaches using valid and tested coaching techniques to help students realise their own learning. Although they are students they are dealing with real customers, suppliers, mentor-entrepreneurs as elements of their business environment. Graduates from the pathway are confident and bold; well-connected and ready to work on and in their own business ventures. These graduates have developed self and business awareness, demonstrating enterprising capabilities including the ability to act and reflect upon their own entrepreneurial effectiveness. To take this process forward, the project is developing an undergraduate degree in entrepreneurship. Launching in September 2016, students joining this course will form *team companies* and spend three years creating, developing and sustaining their organisation, supported throughout by our specially trained team coaches.

Title	SMU-X: A radical approach to prepare university students with skills for the future
Employability Domain	Whole of (social science) university approach to embedded employability
Country	Singapore
Contact	Gary Pan

The key question driving this innovation was – how do we reform our education to prepare students for the economies of the 21st century as the scale and complexity of the challenges facing the world and our graduates today are unprecedented. The team recognised that sometimes, solutions will not come from any single field, but from collaboration between innovators who can see beyond the current way of the world to the way it could be. In order to address these challenges, SMU designed structured fourteen week units offered as electives (SMU-X). The pedagogical principles on which these electives are based include: experiential learning through tackling real world problems and issues; inter-disciplinary learning; active mentoring; and a tri-partite learning loop for the faculty, students and industry partners. Key words used to describe the SMU-X initiative are – experimentation, experiential, excitement, cross-interaction, collaboration and the unknown. The team identifies *mind-set* as the key success factor.



Collaborating on SMU-X has allowed the team to step beyond siloes, work actively within the local community, and develop international perspectives and solutions. To date, 11 electives have been designed. Two were launched in January 2015 and nine in August 2015. SMU estimates that these electives will benefit approximately 700 students. In addition to the electives, the team has designed innovative learning spaces that support the pedagogical principles.



Impact of Reported Graduate Employability Projects and Programmes

Supporting graduate employability from generalist disciplines through employer and private institution collaboration

Aims	Outcomes	Impact
<ul style="list-style-type: none"> ➤ Greater clarity on the issues, challenges and contexts of graduate employability ➤ Create opportunities for the diverse stakeholder groups to share their perspectives ➤ Promote strategies that may be used by the various stakeholders to collaborate on improving graduate outcomes ➤ Identify and review the strategies that have been successfully used to address these challenges 	<ul style="list-style-type: none"> ➤ Website: http://GraduateEmployability.com ➤ New definition of graduate employability to acknowledge the importance of identity and to include making as well as taking careers ➤ A literature review of twelve higher education employability strategies; only strategies for which there was published empirical evidence of improvements to employment outcomes were included ➤ A national graduate employability symposium attended by 150 delegates from 21 universities ➤ Eleven case studies each providing strategies, suggestions and directly quoted perspectives from across the four stakeholder groups ➤ Five published papers, 18 presentations and workshops (national and international) ➤ Graduate Employability Framework displaying the student/graduate at the centre of the process ➤ Employability Mapping Worksheet 	<ul style="list-style-type: none"> ➤ Identification of the discrepancy in stakeholder perspectives about the relative value of various employability strategies ➤ Invited delegates at the National Symposium to commit to written 6 month goals; followed up with the numerous delegates who submitted them and many had actioned employability recommendations ➤ Acceptance of invitation to attend the G20 Leaders Summit and present a report used by the Business20 Human Capital Taskforce ➤ Shortlisted from over 500 entries to the International Wharton QS Stars Reimagine Education Awards, employability category ➤ One of three highly commended initiatives in the employability category of the 2015 Australian Financial Review Higher Education Awards

Developing graduate employability through partnerships with industry and professional associations

Aims	Outcomes	Impact
<ul style="list-style-type: none"> ➔ To identify the key issues and challenges that influence graduate employability from the viewpoint of a wide range of stakeholders across a variety of disciplines ➔ To identify the gap between industry expectations and student and academic perspectives of graduate employability ➔ To build staff capacity to develop curriculum and learning affordances that promote student acquisition of employability skills, knowledge and attributes ➔ To identify the key challenges for staff in developing curriculum for employability skills in students 	<ul style="list-style-type: none"> ➔ Development of an overarching framework highlighting limitation of the traditional 'silo' approach and describing the holistic approach that will best develop employability ➔ Short stories to showcase innovative approaches to developing graduate 	<ul style="list-style-type: none"> ➔ Project institutional partners had a key focus on employability during the period of the project with outcomes to inform policy, practice and future research ➔ Four conference publications were published and three journal publications drafted ➔ Enhancement of an employability framework and development of a new overarching framework with the addition of new sub-categories emerging from the data ➔ Development of a professional development module and a core course with curriculum and assessment addressing a full range of employability skills and attitudes at partner institutions

Enacting strategies for graduate employability: How universities can best support students to develop generic skills

Aims	Outcomes	Impact
<ul style="list-style-type: none"> ➔ To increase understanding of critical issues in enhancing graduate employability in higher education ➔ To identify support for educators seeking to develop student employability 	<ul style="list-style-type: none"> ➔ Survey data from 415 students and data summaries for four institutions ➔ Case study data from 60 stakeholders and 10 vignettes for the targeted disciplines ➔ A website and toolkit housing resources from this project and other sources ➔ An open-access conference paper ➔ Industry snapshots ➔ Guides for educators 	<ul style="list-style-type: none"> ➔ More than 470 stakeholders contributed to the project's findings ➔ During the course of the project, more than 1,500 academics, leaders and practitioners attended presentations at university learning and teaching events and at conferences ➔ 1,720 students and educators attended in-class workshops ➔ Resources trialled with 1,500 students in 2014 embedded into their courses ➔ Four institutions received data summaries to inform their employability initiatives ➔ Industry organisations with an interest in career support and development have begun to link to and from the website and resources

		<ul style="list-style-type: none"> ➤ Educators who ran the survey have adapted resources for use with their students ➤ Post-project activities, including through the website, will encourage systemic adoption
Assuring graduate capabilities: Evidencing levels of achievement for graduate employability		
Aims	Outcomes	Impact
<ul style="list-style-type: none"> ➤ The aim of the fellowship was to provide leadership on an issue of national importance: determining, communicating and evidencing course-wide (degree program) levels of achievement in key capabilities for graduate employability 	<ul style="list-style-type: none"> ➤ Standards rubrics – to create, share and communicate course-wide standards rubrics which describe and exemplify levels of performance in key capabilities ➤ Evidencing standards in student portfolios – to incorporate rubrics into student portfolios for formative self, peer or teacher assessment ➤ Evidencing standards in course reviews – to evidence achievement of the standards (as expressed in the rubrics) in course review documentation ➤ Scholarship of teaching and learning – to participate in a community of practice, networking and benchmarking with colleagues within and beyond Australia and publish scholarly outcomes 	<ul style="list-style-type: none"> ➤ The approach fostered through the fellowship to assuring graduate capabilities is implemented in many of the collaborating institutions as part of their fundamental curriculum development processes. ➤ At one end of the spectrum is Deakin University which has the approach embedded at an institutional level but there is also evidence that the fellowship work is having a continuing impact at other collaborating universities albeit on more of a discipline, department or school level rather than pan-university. ➤ Some of the lessons learned through participation in the activities are now standard in a number of universities and become, for example, a standard methodology for course review.
Improving graduate employability by implementing subject benchmarks		
Aims	Outcomes	Impact
<ul style="list-style-type: none"> ➤ Discuss development of joint-use employability profiles ➤ With colleagues, explore the development of collaborative teaching arrangements ➤ Encourage other discipline areas in Humanities and Social Sciences to take up the benchmarking process, because it has been shown in my original ALTC project to be a successful method of improving teaching and learning 	<ul style="list-style-type: none"> ➤ Four group discussions workshops ➤ Exemplar program on standards and benchmarking, undertaken by the University of Queensland ➤ National and international conference presentations and publications 	<ul style="list-style-type: none"> ➤ Establishment of a sense of community among archaeological educators ➤ Wider dissemination of the program aims and outcomes than originally envisaged ➤ Inspiration for further innovation in archaeological education ➤ Benchmark exemplar undertaken at the University of Queensland

Employability of Bachelor of Arts graduates		
Aims	Outcomes	Impact
<ul style="list-style-type: none"> ➤ To investigate and document the linkages between curriculum design, practicum experiences and graduate attributes relative to prospective employer expectations ➤ To investigate and document the extent to which the institutional outcomes for BA graduates relate to industry / community expectations ➤ To analyse how graduate attributes are implemented, evaluated and assessed in BAs across the sector and communicated to industry ➤ To analyse the implications of work integrated learning programs in the BA, and for program managers in coordinating placements ➤ To determine the extent to which integrated learning in the BA provides training or skills for future workplaces 	<ul style="list-style-type: none"> ➤ The main deliverable from this project is the production of a detailed (over 200 pages) report presenting a comprehensive analysis of the survey results. 	<ul style="list-style-type: none"> ➤ This project has the potential to heighten awareness across the government, tertiary and industry sectors of the value and impacts of disciplines encompassed by the term 'liberal arts' which deliver the BA degree. ➤ Awareness across the tertiary sector of how liberal arts is viewed in the wider community and by graduates themselves is expected to result in redefining and restructuring of the BA degree, and in fact, of undergraduate education as a whole
Building course team capacity to enhance graduate employability		
Aims	Outcomes	Impact
<ul style="list-style-type: none"> ➤ The aim of this project was to build the capacity of university teaching staff to enhance the employability of their graduates through: ➤ Tools to identify strengths and gaps in course effectiveness for graduate employability, and the capacity of course teams (full-time, part-time and sessional staff) to identify and assess skills and attributes which lead to graduate employability ➤ Resources to enhance identified strengths and address gaps ➤ A benchmarking process for course leaders focusing on graduate employability 	<ul style="list-style-type: none"> ➤ Outcomes include resources and processes to assist teaching teams to enhance curriculum for employability: teaching resources, leadership resources and a guide to benchmarking with a focus on graduate employability. ➤ The outcomes have been disseminated through peer-reviewed publications, posters and presentations within and beyond Australia, at an ALTC supported national forum on graduate capability development and through an ALTC Fellowship and a National Teaching Fellowship. 	<ul style="list-style-type: none"> ➤ Particularly noteworthy successes were the National Forum, the enhancement of tools and processes in Curtin University, engagement with the Australian higher education sector in promoting the concept of graduate capabilities and providing tools and processes in ways in which they can be identified and codified to inform curriculum planning and review. ➤ The website remains a significant and enduring resource of the project. ➤ The ability to benchmark different disciplinary graduate capabilities in different disciplines was demonstrated.

Benchmarking partnerships for graduate employability

Aims	Outcomes	Impact
<ul style="list-style-type: none"> ➤ To encourage course leaders from universities across Australia to engage in benchmarking partnerships with a focus on graduate employability ➤ To disseminate curriculum tools which would enable that focus: a curriculum mapping tool; graduate and employer surveys; and a needs analysis which assembled course quality indicators 	<ul style="list-style-type: none"> ➤ Assurance of learning for graduate employability framework ➤ Capabilities: attributes, skills and competencies for graduate employability ➤ Mapping capabilities in the intended curriculum ➤ Evaluating student achievement of capabilities: student portfolios ➤ Course portfolios ➤ Benchmarking partnerships for graduate employability ➤ Dissemination 	<p>At the time of final report publication:</p> <ul style="list-style-type: none"> ➤ The website attracted over 3000 unique visits from around the world ➤ 148 colleagues joined the fellow's network ➤ The fellowship engaged over 3000 colleagues from 54 institutions within and beyond Australia ➤ Seven invited addresses (four international) including four keynotes; six peer-reviewed conference papers; six conference presentations; ➤ Five posters ➤ Other peer reviewed papers and an edited book were in preparation



Applying the framework of Hamilton (2014), initiatives can be classified into one or more of three categories.

1 Analytical

These initiatives may be empirical (primary and/or secondary), theoretical and/or evaluative. In the context of graduate employability, a number of fellowship programmes have collaboratively advanced understanding across the higher education sector. Commissioned projects have collected and interpreted stakeholder perspectives through surveys and/or interviews and focus groups.

2 Developmental

A number of graduate employability tools and resources have been produced, refined and evaluated. Examples include frameworks, measurement instruments, proformas and protocols. These have often been tested and reported as case studies.

The OLT PELTHE initiatives presented above all had characteristics of analytical and developmental projects.

3 Applied

A number of the reported initiatives are framed on an iterative progression from analytical (scoping), developmental (piloting) and then applied (implementing and evaluating). Upon application, the majority of innovators intentionally and formally share and subsequently report dissemination. Furthermore, the initial impacts of applied initiatives are reported.

The initiatives presented at the Reimagine Education 2015 conference and subsequently self-nominated for inclusion in this Good Practice Report were all applied in nature. They were all innovations designed and implemented at home institutions for the benefit of local students and graduates.

One of the collaborative activities of the Reimagine Education 2015 conference was to list and discuss the possible impacts of showcased initiatives designed to nurture employability. From these conversations and analysis of the showcased employability initiatives, the following is a list of indicators of positive impact on graduate employability. Notably, this list only includes outcomes. Process indicators such as quantity and reflections on student employability activities such as internships, volunteer work and international exchanges have not been included.

Impact of Reported Graduate Employability Projects and Programmes

Outcome indicators of positive impact on employability

- ➔ Heightened satisfaction of graduates, families and employers.
- ➔ Better fit between employer expectations and experiences of the knowledge, skills and personal attributes of employees.
- ➔ Higher rates of employment among graduates.
- ➔ Increased rate of viable new enterprise and entrepreneurial endeavours of graduates.
- ➔ A stronger match between discipline of study and employment type.
- ➔ Clearer defined career identity and ability of graduates to articulate these distinctive identities.
- ➔ Higher incomes among graduates, including in comparison to non-graduates.
- ➔ Heightened career satisfaction among graduates.
- ➔ Increased opportunities for promotion, including in comparison to non-graduates.
- ➔ Increased flexibility and agility of graduates, accommodating technological change and evolving careers.
- ➔ Heightened graduate social consciousness and resolution of community problems, including from a global perspective.
- ➔ Evidence of graduate appetite for lifelong learning, including return to higher education for advanced credentials.



At the conference and mirrored in the literature, it was readily acknowledged that individual initiatives, even when collaborative between multiple institutions, can only hope to address a sub-section of these impact factors. Furthermore, reports are usually written shortly after the conclusion of a bounded project and/or grant funding term. Authentic impact and measures thereof can take years to accumulate.

The reviewed OLT PELTHE initiatives, being analytical and developmental in nature, did not report direct and immediate impact on students and graduates. However, all of them forecast that these positive outcomes and impacts can be expected to occur as the frameworks, protocols and approaches disseminated and workshopped through the initiatives are implemented by the attending academics.

The included Reimagine Education 2015 submissions, on the other hand, described immediate impact on local students and graduates. All of the impact was perceptual. Few reported that they collected long-term data on employment outcomes. Specifically, the following employability impact indicators were noted in most descriptions.

- ➡ Heightened satisfaction of graduates, families and employers.
- ➡ Better fit between employer expectations and experiences of the knowledge, skills and personal attributes of employees.
- ➡ Clearer defined career identity and ability of graduates to articulate these distinctive identities.

One of the initiatives described the following impact:

- ➡ Increased rate of viable new enterprise and entrepreneurial endeavours of graduates.

The other eight employability outcome indicators were not described in the applications. This overall result provides scope for further research. Future researchers may wish to use the listed impact factors to evaluate the relative success of their nurturing employability initiatives.

Summary of Gaps and Recommendations

(from OLT PELTHE final reports only)

Gaps

Among all three strategic priority projects commissioned in December 2013 (reports published in 2015), there was an emphasis on the need for enhanced understandings of employability. As articulated by Bennett et al. (2015) there is a need for 'a far more nuanced understanding' (p. 21). Currently there is a tendency to define employability by the blunt instruments by which it is measured and reported. For example, Graduate Careers Australia reports the percentage of surveyed graduates from undergraduate degrees who are employed full-time four months after graduation. To many people, this statistic becomes the sole operational definition of employability. As pointed out by the report authors, there are many gaps in this definition. It does not include graduates from postgraduate degrees, entrepreneurs, consultants, graduates combining a number of part-time positions, nor people who take longer to secure employment. Furthermore, landing a job is not the only indicator of graduate employability.

Several of the reviewed projects called for an employability framework. Jollands et al. (2015) applied the CareerEDGE framework (Dacre Pool & Sewell, 2007). However, whether it be by these authors or others, Jollands et.al. identified a need for elaboration and further development.



An employability framework is useful if it identifies learning objectives for renewal of curriculum for employability. It must be coherent, systematic, detailed and adaptable. It should also promote a deep understanding of employability issues and facilitate development of sequenced curriculum. However, no such framework currently exists. A new framework should be developed that has taxonomic categories with scaffolded development. This would assist staff to identify scaffolded learning objectives suitable for different year levels. (Jollands et al., 2015, pg. 9)





Kinash & Crane (2015) also identified a need for an advanced employability framework. They responded by developing a visual framework and an accompanying explanatory journal article. The framework is available at:

<http://graduateemployability.com/wp-content/uploads/2015/07/Resource-Graduate-Employability-Framework-2015.pdf>

The journal paper will also be available on the website upon publication. A recommendation for further work would be to develop accompanying disciplinary taxonomic categories and sequenced curriculum as described by Jollands et al. on the previous page of this report.

There was a large-scale focus on the processes, systems and strategies higher education could take to advance employability. Far from being siloed in university career development centres, these initiatives were all contextualised within faculties, schools and programs. There appeared to be an unquestioned assumption that the place of employability is as embedded in the everyday curriculum. It was emphasised that educators and educational leaders have an obligation to take a well-informed strategic approach towards nurturing discipline-specific employability.



Educators should plan to develop students' employability systematically from the beginning to the end of their studies. This major change would require a cultural shift from the silo approach of the traditional program, with academics isolated from each other, industry, students and graduates. New program design is needed with employability integrated seamlessly into curriculum and assessment, and a new culture is needed where stakeholders share a professional identity. (Jollands et al., 2015, pg. 9)



Articulated throughout the majority of final reports was a need to cohesively create and standardise a national approach to employability. There was an emphasis on national standards, graduate capabilities (particularly discipline-specific), benchmarking and quality assurance. In 2010 Oliver identified a gap in graduate and employer feedback, particularly in relation to benchmarking.



The initial scan undertaken for this fellowship suggested there was intense activity in relation to curriculum mapping, and less so in graduate and employer feedback and benchmarking. The key to greater effectiveness is in approaching these activities in a 'joined up' and integrated way: all stakeholders need to inform the other aspects of the framework. (Oliver, 2010, p. 6)



Subsequent PELTHE initiatives have continued the success of curriculum mapping and embedding employability in the everyday curriculum (see for example, Jollands, et.al., 2015 and Kinash & Crane, 2015). This is also an international focus, as indicated by the United Kingdom's Higher Education Academy

(<https://www.heacademy.ac.uk/enhancement/frameworks/framework-embedding-employability-higher-education>).

Subsequent PELTHE programs have also aspired towards greater graduate and employer feedback, succeeding in heightening the graduate voice, but continuing to struggle in meaningful and substantive engagement with employers. While some engagement has transpired (see for example, Bennett, et.al., 2015) the research participant sizes are greatly skewed in all cases, in that there are substantially lower numbers of employers as compared to other stakeholder groups. Oliver herself has made significant progress towards developing and disseminating benchmarking, as evidenced in her 2015 and 2011 PELTHE final reports. Other scholars such as Beck (2014) have developed benchmarking processes to improve graduate employability in specific disciplines (e.g. in this case archaeology). Continued work needs to be done on integrating all of these systems and elements together.

Beyond the overarching frameworks, systems, strategies and curriculum, there is also a call for further classroom-level resources. Jollands, et al. 2015 articulated a specific call.



More high-quality teaching resources are needed to assist staff to adopt and adapt good practice to foster their students' learning for employability. Better organisation and easier access to resources is needed. More evidence of effective practice is needed to ensure practices promoted for adoption are indeed effective. (Jollands, et al., 2015, p. 9)



This call was simultaneously answered by another of the commissioned projects (Bennett, et al., 2015). For the specific disciplines of music and dance, biomedical sciences and bio-technology, professional and creative writing, and computer science, this project team designed tools, resources and case studies to support educators to embed employability into the everyday curriculum. These resources are available at <http://graduateemployability.curtin.edu.au/>

The following are additional questions articulated by the report authors as suggested further research. The number next to each question represents the number of final reports in which each question was articulated. The higher numbers provide some indication of perceived priority by employability researchers.

- ➔ How can graduate attributes be assessed and through what processes are they most effectively delivered? (x2)
- ➔ What would bridge discrepant stakeholder perspectives and experiences? For example, how can higher education resolve gaps between what academics think they have delivered as learning outcomes, what students think they have developed during their studies and what employers expect from employees? (x2)
- ➔ What are the national standards (in the context of employability and graduate capabilities)? Who decides them and where are they articulated? Are there standard and holistic rubrics that guide student, peer and teacher approaches to formative and summative assessment for professional and safe practice? (x2)
- ➔ How does employability and thereby how do strategies and approaches differ between disciplines? (x2)
- ➔ How can we best 'engage the disengaged' academics to support cohesive approaches to graduate employability?
- ➔ Would changing people's mindset about generalist (liberal arts) degrees have a significant effect on heightening employability for respective graduates?
- ➔ What processes and approaches are effective for making graduates aware of their skills and attributes?
- ➔ Should undergraduate degrees be extended to four years to allow students both a generalist experience and core content in a discipline major?
- ➔ Would capstone subjects and/or experiences have a significant effect on heightening employability?
- ➔ To what extent would further study (e.g. postgraduate degrees) contribute to employability?

Recommendations for improving employability

The following are the general recommendations articulated by the report authors regarding how to improve graduate employability. The number next to each question represents the number of final reports in which each recommendation was articulated. The higher numbers provide some indication of perceived priority by employability researchers.

- ➔ Engage in national benchmarking in the context of employability and graduate capabilities; involve multiple stakeholder groups in this benchmarking (x4)
- ➔ Implementation of national employability standards (x4)
- ➔ More actively engage with the community (x2)
- ➔ Make graduates aware of how to sell their skills and apply them to the workplace (x2)
- ➔ Articulate clearly-defined graduate attributes and demonstrate how these are embedded in the degree
- ➔ Define the link between major/s and career paths
- ➔ Take actions to make employers more aware of graduate skills and attributes
- ➔ Build in WIL to the degree or incorporate internships and practical work experiences
- ➔ Engage with professional bodies
- ➔ Provide mentoring or peer-support for students
- ➔ Provide a focus on skills that are valued by employers
- ➔ Equip students with job application and interview skills
- ➔ Provide better career guidance

Bennett, et al. (2015) articulated seven over-arching recommendations for nurturing employability. The essence of these recommendations is echoed throughout the other employability reports reviewed in this Good Practice Report.

This project (Bennett, et al., 2015) has found that employability is a critical concern for higher education and should be addressed as a matter of urgency. Recommendations are as follows:

- 1 That institutions embed and resource employability as a key institutional strategy, engaging the expertise of careers advisors and professionals at program and course level and developing an endorsed capacity building strategy for local leaders
- 2 That all students explore and apply knowledge relating to self and career as foundational elements of their program; this should be achieved through authentic learning experiences that incorporate critical reflection and ensure that emerging capabilities are evidenced using a valid framework
- 3 That program delivery reflects professional practice and that all educators be supported to become industry-aware and pedagogically proficient
- 4 That higher education position itself to gather academic and learning analytics that track student behaviour and the development of employability capabilities and competencies
- 5 That revisions of the Graduate Destination Survey be consultative and ensure the generation of data which is sufficiently nuanced to capture complex work arrangements, using a validated measure; and that the Office for Learning and Teaching explore the ongoing collection of graduate data through agreement with the Australian Taxation Office and the Department of Education and Training
- 6 That the Office for Learning and Teaching establish a 'linkage' program to support industry partnerships that benefit both students and educators
- 7 That higher education institutions develop post-graduation support and professional learning initiatives as an extension of their core business

The Kinash and Crane (2015) strategic priority project used a data-rich approach to identify employability recommendations for each of four stakeholder groups.



Students

- ➔ Start early, such as in your first semester
- ➔ Participate in work experience, placements and internships
- ➔ Join in extra-curricular and co-curricular activities (e.g. student societies, clubs and competitive sport)
- ➔ Get to know your professors and your career development centre personnel



Graduates

- ➔ Choose a few prospective employers, do your research and tailor your applications
- ➔ Carefully proof read and edit all application forms
- ➔ Participate in industry graduate initiatives when offered
- ➔ Know yourself and practice articulating your personal employability brand



Higher Education Personnel

- ➔ Support increased opportunities for student work experience, placements and internships
- ➔ Explicitly articulate the relevant graduate employability skills in the learning outcomes for every subject
- ➔ Design authentic assessment activities, aligned with industry practices, standards and approaches
- ➔ Know your disciplines' career options and outcomes and be explicit about career pathways



Employers

- ➔ Offer work experience, placements and internships
- ➔ Make yourself available to your local universities, educator providers and/or online
- ➔ Prioritise and facilitate the transition and adjustment of new employees and graduates
- ➔ Invite and value innovation and intrapreneurship
- ➔ Support new employees to meet senior management and rotate them between divisions so that they can better understand their role and your business



Conclusion

The seminal definition of graduate employability has grounded highly commendable work in a stance and context. The definition, as articulated by Professor Yorke from the United Kingdom, identified the key domains of skills, understandings and personal attributes. There was widespread acknowledgement across analytical initiatives that an expanded definition and framework are now required. Options have been created by the authors of the reports reviewed in this Good Practice Guide. Whereas the reviewed OLT PELTHE reports were designed to be analytical and developmental, leading and inspiring good practice, the reviewed international Reimagine Education innovations were designed to be applied and thereby to implement direct and immediate impact on students and graduates from their respective institutions. The innovations were submitted from five different countries and from a number of different disciplines (e.g. Business, Law and Chemical Sciences). It was readily apparent that the approach to employability needs to be discipline-specific in order to make a commendable contribution. For example, the OLT PELTHE projects situated in the Arts indicated that the main approaches to employability need to be creating new and optimistic overall degree brands, ameliorating discipline stigma and raising awareness of students and graduates as to the value-added capacities of their degrees. On the other hand, the numerous reviewed innovations from the Business discipline describe positive employability outcomes from heightening entrepreneurship and by modelling the structure of higher education after successful companies and corporations.

Overall, the review indicated that globally, there are more questions than answers in the context of employability and that significant work needs to be done, particularly at a strategic level.

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